IRIS Program Overview

Forging Partnerships on Emerging Contaminants

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US EPA

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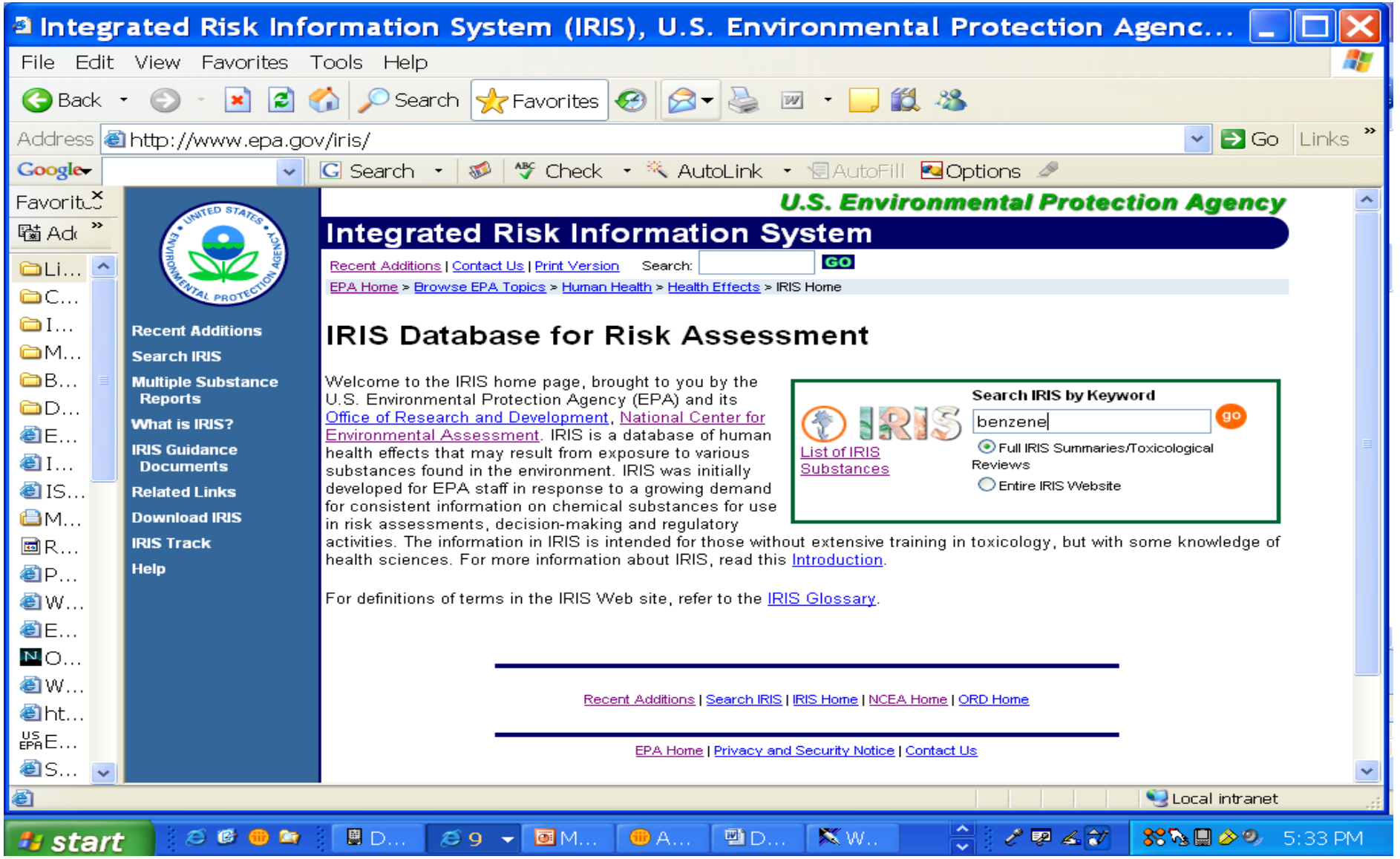
IRIS (Integrated Risk Information System) Program

- **Develops EPA consensus positions on potential human health effects from exposure to various chemical substances found in the environment**
- **Source of toxicity information to inform risk-based decision-making; founded on EPA guidelines for health risk assessment**
- **Fosters consistent risk assessments across EPA Programs and Regions**
- **Over 500 chemical-specific IRIS Summaries, many with Toxicological Review (or similar) background documents available**
- **Qualitative hazard characterization and cancer weight of evidence. Quantitative assessments: Reference Dose, Reference Concentration; cancer slope factor and unit risks**

IRIS database home page
www.epa.gov/iris


Integrated Risk Information System (IRIS), U.S. Environmental Protection Agenc...
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IRIS Database for Risk Assessment
Welcome to the IRIS home page, brought to you by the U.S. Environmental Protection Agency (EPA) and its Office of Research and Development, National Center for Environmental Assessment. IRIS is a database of human health effects that may result from exposure to various substances found in the environment. IRIS was initially developed for EPA staff in response to a growing demand for consistent information on chemical substances for use in risk assessments, decision-making and regulatory activities. The information in IRIS is intended for those without extensive training in toxicology, but with some knowledge of health sciences. For more information about IRIS, read this Introduction.
For definitions of terms in the IRIS Web site, refer to the IRIS Glossary.
List of IRIS Substances
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benzene
go
Full IRIS Summaries/Toxicological Reviews
Entire IRIS Website
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IRIS Users

- **EPA Program Offices and Regional Offices**
  - **Regulatory and site-specific evaluations**
- **Other Federal agencies**
- **State and local agencies**
- **International agencies**
- **Public - including academia, regulated industries, environmental organizations, individuals**
- **Usage: ~ 21,000 hits/day**

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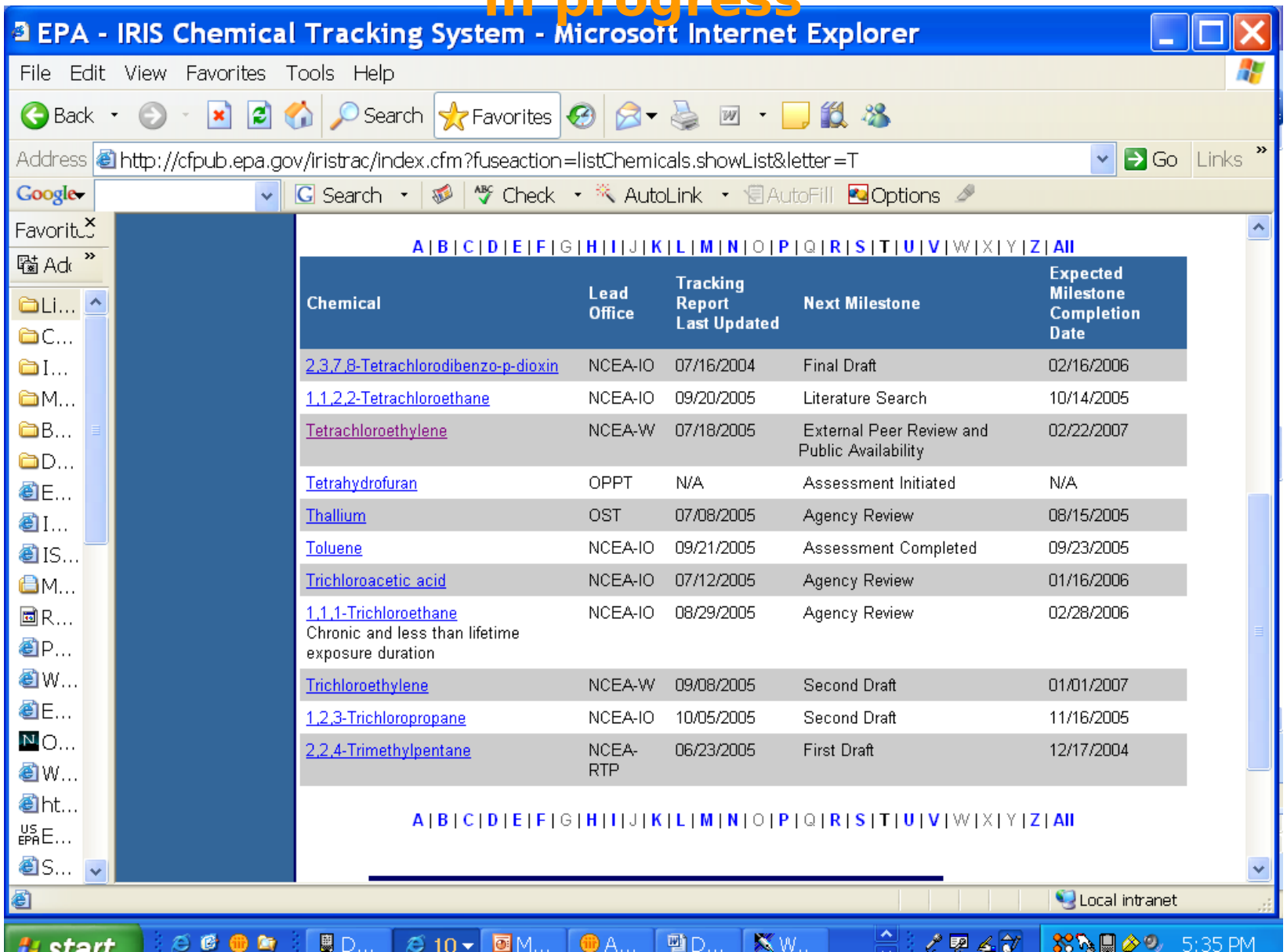
IRIS Agenda

- **Priority-based annual selection of substances for IRIS (re)assessment**
  - **Criteria:**
    - **Statutory, regulatory, or programmatic need**
    - **New science or methodology available to update an older assessment**
    - **Public, state, other user need (in response to FR notice)**
    - **Health assessment available or in progress in EPA or other federal agency (leverages resources)**
    - **Availability of EPA resources to conduct assessments**
- **2005 agenda (70 FR 10616) lists 82 assessments in progress**

IRIS Track – accessible from web site; shows current milestones for assessments in progress


EPA - IRIS Chemical Tracking System - Microsoft Internet Explorer
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A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | All
Chemical | Lead Office | Tracking Report Last Updated | Next Milestone | Expected Milestone Completion Date
2,3,7,8-Tetrachlorodibenzo-p-dioxin | NCEA-IO | 07/16/2004 | Final Draft | 02/16/2006
1,1,2,2-Tetrachloroethane | NCEA-IO | 09/20/2005 | Literature Search | 10/14/2005
Tetrachloroethylene | NCEA-W | 07/18/2005 | External Peer Review and Public Availability | 02/22/2007
Tetrahydrofuran | OPPT | N/A | Assessment Initiated | N/A
Thallium | OST | 07/08/2005 | Agency Review | 08/15/2005
Toluene | NCEA-IO | 09/21/2005 | Assessment Completed | 09/23/2005
Trichloroacetic acid | NCEA-IO | 07/12/2005 | Agency Review | 01/16/2006
1,1,1-Trichloroethane Chronic and less than lifetime exposure duration | NCEA-IO | 08/29/2005 | Agency Review | 02/28/2006
Trichloroethylene | NCEA-W | 09/08/2005 | Second Draft | 01/01/2007
1,2,3-Trichloropropane | NCEA-IO | 10/05/2005 | Second Draft | 11/16/2005
2,2,4-Trimethylpentane | NCEA-RTP | 06/23/2005 | First Draft | 12/17/2004
A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | All
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Current Activity

- **Assessments in progress are incorporating new science, methodologies, and risk assessment guidelines, including –**
  - **EPA's 2005 cancer guidelines and supplemental guidance for assessing risks from early-life exposure**
  - **EPA recommendations for deriving RfDs and RfCs for less-than-lifetime exposure durations**
- **Continual literature screen for new studies with the potential to impact existing IRIS toxicity values or cancer weight of evidence determinations**
  - **Summary results of literature screen, and verification of results, are being reported in IRIS**

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Current Process for Assessment Development and Review

- **FR Notice; data call**
- **Literature search and review**
- **EPA develops draft assessment**
- **Internal peer review, IRIS Agency Review**
- **External peer review with public comment period**
- **Final EPA approval and posting on IRIS database**

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External Scientific Engagement

- **Scientific peer consultation on issues**
  - **EPA's Science Advisory Board (SAB), National Academy of Sciences (NAS), expert panels used to gain insights on scientific issues**
- **External peer review of draft assessments**
  - **External (non-EPA) expert panel; often SAB or NAS for major assessments**
  - **Concurrent public comment period**
  - **Public comments made available to reviewers prior to panel meeting**
  - **Disposition of major peer review and public comments provided as appendix to final Toxicological Review**

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IRIS Process Changes Under Consideration

- **Enhancements under consideration to identify and resolve scientific issues earlier in the process and involve other federal agencies**
  - **Public release of early draft with qualitative information for technical correction**
  - **More use of early external scientific peer consultation when needed (e.g., NAS)**
  - **Earlier interagency involvement**
- **Recent meeting with other Agencies indicates common ground and movement in similar direction**
  - **IRIS procedures clarified – improved communication**
  - **All recognize importance of rigorous scientific process**
  - **Discussions continuing**
- **EPA is planning public workshop**

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For Further Information on the IRIS Program

- **www.epa.gov/iris - see Recent Additions, Background Documents, and IRIS Track**
- **IRIS Hotline (202) 566-1676**
  - **For questions about IRIS database access and content**
- **Amy Mills, IRIS Program Director (202) 564-3204 or (202) 564-3392**